

Practices Worthy of Attention
Keeping Learning on Track
Cleveland Municipal School District
Cleveland, Ohio

Summary of the Practice. Cleveland Municipal School District is using a program called Keeping Learning on Track with its 10 lowest-performing K–8 schools. The program integrates assessment with instruction through teacher learning communities. In the monthly meetings, teachers learn about, discuss, and reflect upon their use of informal classroom techniques to gauge student understanding during instruction so they can adapt their approach immediately to students’ needs.

Need. Lower-performing schools, especially in urban areas, tend to have teachers with the least amount of preparation. Cleveland believed that investing time and effort in improving the quality of teacher preparation and practice in their schools would help raise student achievement.

Goal. The goal of Keeping Learning on Track is to have teachers improve their instructional strategies through collaborative learning and problem solving in their teacher learning communities.

Demographics

Cleveland Municipal School District serves grades K–12. Enrollment has dropped by more 17% in the past few years, from almost 70,000 students in 2002–2003 to fewer than 58,000 in 2005–2006 (see Table 1).

Table 1. Cleveland Municipal School District Enrollment Data

Academic Year	Enrollment
2002–2003	69,534
2003–2004	67,015
2004–2005	62,542
2005–2006	57,698

Table 2 shows student enrollment, graduation, and dropout rates since 2002–2003 by race/ethnicity, limited English proficiency, and economic disadvantage. According to the most recent data, the majority of students in Cleveland Municipal School District are black (70.3%), followed by white (16.7%) and Hispanic (10.4%). Since 2002, a minimum of 98.8% of students has been classified as economically disadvantaged. Only a small percentage of Cleveland’s students is classified as having limited proficiency in English (4%). High school graduation rates were at 51.8% for all students in 2004–2005, reflecting a steady pattern of growth (from about 41% in 2002–2003). Graduation rates vary across subgroups, with the lowest graduation rate belonging to students classified as having limited proficiency in

English (as low as 21.9% in 2003–2004 and as high as 45.8% in 2004–2005). Dropout rates for all reported subgroups range between 3% and 6% with no clear pattern.

Table 2. Cleveland Municipal School District Enrollment, Graduation, and Dropout Rates

Demographics	Academic Year	Percentage Enrolled	Percentage Graduating	Percentage Dropping Out
All Students	2002–2003	100	40.8	6.0
	2003–2004	100	50.2	3.1
	2004–2005	100	51.8	3.5
	2005–2006	100	*	4.5
Asian American	2002–2003	0.7	45.6	*
	2003–2004	0.7	67.3	*
	2004–2005	0.7	64.3	*
	2005–2006	0.6	*	*
Black	2002–2003	70.6	40.9	5.9
	2003–2004	70.5	50.9	3.2
	2004–2005	70.2	51.3	3.5
	2005–2006	70.3	*	4.2
Hispanic	2002–2003	9.1	42.4	6.0
	2003–2004	9.5	50.9	2.5
	2004–2005	10.0	56.1	2.8
	2005–2006	10.4	*	3.0
White	2002–2003	18.3	39.3	6.6
	2003–2004	17.7	46.3	3.0
	2004–2005	17.4	52.2	3.5
	2005–2006	16.7	*	6.0
Limited English Proficient	2002–2003	4.2	32.2	*
	2003–2004	3.9	21.9	*
	2004–2005	4.5	45.8	*
	2005–2006	4.0	*	*
Economically Disadvantaged	2002–2003	98.8	*	6.1
	2003–2004	100	50.2	3.1
	2004–2005	100	51.8	3.5
	2005–2006	100	*	4.5

Note: The asterisk (*) notes that data were not available.

Description of the Practice

During 2005–2006, Cleveland Municipal School District piloted Keeping Learning on Track (KLT), a formative assessment program developed by Educational Testing Service (ETS).

The focus of KLT is on using *assessment for learning*—that is, assessing student learning continually and without tests. The practice of using assessment for learning is based on the concept of using evidence of learning to adjust instruction while it is taking place, so teachers can immediately address students' learning needs.

The kinds of adjustments that assessment for learning allows to instruction are also known as minute-to-minute and day-to-day assessment for learning, which has been shown to provide great growth in student learning (Black, Harrison, Lee, & Marshall, 2003; Black & Wiliam, 1998; Brookhart, 2005). Regardless of what techniques teachers decide to use, these types of formative assessment checks can provide teachers what they need to change their daily practice, which may result in large changes in teacher pedagogy, the classroom culture, and student learning. Leahy, Lyon, Thompson, and Wiliam (2005) have identified five key strategies teachers can use when adopting assessment for learning techniques:

- Clarifying and sharing learning intentions and criteria for success.
- Engineering effective classroom discussions, questions, and learning tasks.
- Providing feedback that moves learners forward.
- Activating students as the owners of their own learning.
- Activating students as instructional resources for one another. (p. 20)

Since teachers' instructional styles vary, Keeping Learning on Track provides a variety of ways for teachers to measure student learning on the fly. One example is the thumb technique: The teacher asks the students how well they understand a concept, and students can put their thumb up to represent that they understand the concept well, put their thumb down to indicate they are confused, or somewhere in the middle to indicate they understood it but still need further instruction or practice. Teachers can then use these student responses to make instructional adaptations right at that moment.

The framework of KLT is to have teachers meet regularly in teacher learning community (TLC) meetings, to reinforce these ideas and build upon the techniques, strategies, and ideas behind the KLT program. In summer 2005, participating teachers from the 10 lowest-performing K–8 schools in Cleveland were given a one- to three-day introduction to assessment for learning by ETS Keeping Learning on Track developers. The introduction included modeling of several different assessment techniques teachers could use during lessons.

At the end of the introduction, teachers wrote individual action plans outlining the specific techniques within each strategy they would like to implement in their classrooms and identifying what current practices they would relinquish in order to make time for the new techniques. The teachers were asked to complete reflective journal entries while they implemented the new techniques describing their experiences using them. KLT is not designed specifically for any one content area, focusing instead on improving the pedagogical skills of teachers; however, Cleveland decided to focus their use of KLT strategies on

mathematics, since the district mathematics coordinator also helped incorporate mathematics content in the monthly TLC meetings.

Cleveland district mathematics staff and the ETS program developers led the monthly TLC meetings. Teachers used these meetings to discuss the implementation of assessment for learning in their classrooms and to refine their understanding of KLT techniques. One of the goals of the TLC meetings was to create a comfortable community where teachers could learn from one another and standardize the ways they view teaching and learning.

At the start of each meeting, teachers would gather in small groups for a “How’s It Going?” check-in to discuss the techniques they had been using and whether the techniques were successful. ETS and district staff would ask teachers about certain techniques the teachers may not have tried as well as what supports they would need to use KLT more in their classrooms. Teachers shared their successes with the entire group and received feedback on what they were doing; then they spent the end of every meeting revising the action plans they had developed in the summer and documenting their intent to try new techniques.

The TLCs included mathematics teachers from a range of grade levels in K–8. This allowed for diverse discussions across topics and helped create a support network comprised of teachers with similar situations and students. Through regular sharing of how they were implementing and refining KLT practices, as well as the presentation of new techniques and ideas relevant specifically to mathematics content, the goal of the TLCs was to help teachers absorb these new ideas into their own practices.

Each monthly meeting also focused on a different aspect of assessment for learning, such as how to look at student grades and make inferences, how to assess students’ mathematics work, or how to gather evidence that could demonstrate student learning. Every meeting reinforced the idea that increasing teacher capacity is important for improving student performance, thereby assuring teachers that learning the new techniques and reflecting on their own practice was a worthy enterprise.

Results

The 2005–2006 academic year was the first year Cleveland Municipal School District used the Keeping Learning on Track program, so it is difficult to measure the program’s success at this point. However, the schools that used KLT in 2005–2006 showed greater improvement in mathematics on the Ohio state exam than schools that did not use it. Table 3 lists the results for all of Cleveland Municipal School District on statewide mathematics achievement tests for grades 6–8 by race/ethnicity. Achievement tests for grades 7 and 8 began in 2004–2005. There do not appear to be any clear trends in the data for the mathematics tests in grades 6–8, especially when for grades 7 and 8, there are only two years of data, so no conclusions are being drawn about increases in performance yet.

The performance of all students shows an average of about 32% proficiency in grades 6–8 for all years. Scores for most groups drop off in grades 7 and 8, but do show improvement in the second year of testing (2005–2006) for these two grades. There is a lower percentage of students with limited proficiency in English at and above the proficient level in mathematics

compared to all students across grades. Since 2003–2004, 100% of students in the district are considered economically disadvantaged, so this category does not exist as a breakout group in this table.

Table 3. Cleveland Municipal School District Ohio Mathematics Achievement Test Results

Demographics	Year	Percentage At and Above the Proficient Level		
		Grade 6	Grade 7	Grade 8
All Students	2002–2003	34.7	*	*
	2003–2004	39.7	*	*
	2004–2005	41.1	21.2	19.0
	2005–2006	34.5	31.5	31.2
Asian American	2002–2003	66.7	*	*
	2003–2004	65.4	*	*
	2004–2005	84.6	40.7	68.0
	2005–2006	80.0	70.0	61.5
Black	2002–2003	30.8	*	*
	2003–2004	35.3	*	*
	2004–2005	37.1	17.8	15.9
	2005–2006	29.6	27.1	26.8
Hispanic	2002–2003	41.5	*	*
	2003–2004	42.6	*	*
	2004–2005	44.1	21.8	18.0
	2005–2006	37.4	37.5	35.1
White	2002–2003	45.4	*	*
	2003–2004	55.0	*	*
	2004–2005	55.5	34.5	30.6
	2005–2006	51.7	48.0	47.3
Limited English Proficient	2002–2003	23.9	*	*
	2003–2004	28.5	*	*
	2004–2005	33.7	18.1	17.0
	2005–2006	32.9	31.8	31.1

Note: The asterisk (*) notes that tests were not given in these years.

Overall, schools in Cleveland that participated in the KLT program showed substantially greater gains than those that did not. In March 2005, the mean score of the Ohio Mathematics Achievement Test for the ten participating schools was 379.85; in March 2006, it was 388.29. This is a mean gain of 8.44 scale score points from one year to the next year. For all the other K–8 schools in the district, the mean Ohio Mathematics Achievement Test scaled score was 388.94 in March 2005 and 391.16 in March 2006, which translates to a mean gain of 2.22 scale score points. The effect size for these schools in grade 7 was 0.11, and in grade 8, it was

0.18. To put these effect sizes in context, it is useful to consider the fact that the renorming of the SAT-9 achievement test showed differences between grades to be around 0.5 standard deviations in mathematics. Thus, the effect size for a seventh-grader might be seen as equivalent to a fifth of a year's growth, and for an eighth-grader, it would be closer to over a third of a year's growth, which certainly reflects a substantial gain associated with KLT compared to other schools in these grades.

Conclusions

The Keeping Learning on Track program shows promise as a practice that allows teachers to quickly assess student learning and adjust instruction accordingly. Although KLT is designed to be used in any content area, it shows promise here for effecting change in a specific content area (mathematics). A good future step in this work would be to continue to look at changes in classroom performance over time to determine whether the longer teachers sustain and improve their use of KLT techniques, the better their classrooms perform.

References

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About *Practices Worthy of Attention: Local Innovations in Strengthening Secondary Mathematics*

Practices Worthy of Attention is a joint initiative of Achieve, Inc. (www.achieve.org), and the Charles A. Dana Center at The University of Texas at Austin (www.utdanacenter.org). The initiative is led by Pamela L. Paek, a research associate at the Dana Center, who, in 2006, examined 22 program, school, and district practices that showed promise—based on early evidence and observation—of strengthening secondary mathematics teaching and learning.

Our goal was to document practitioners' descriptions of *what is really happening* in the field to strengthen secondary mathematics education around the country. Thus, while the practice highlighted may be common, the specific structures and strategies used to implement the practice are worthy of attention. These initial investigations set out to mark these practices for future rigorous scientific inquiry by Dana Center and other researchers.

Ultimately, we hope to create a community of inquiry made up of university researchers working with administrators and teachers from featured schools and districts to more rigorously research how effectively these practices improve secondary mathematics learning for all students.

Reports and practice profiles. An executive summary details the methods for this initiative and analyzes themes. Two cross-case analyses discuss specific strategies for raising student achievement and building teacher capacity. Brief profiles describe each practice. All of these publications are available on our website at www.utdanacenter.org.

Data. In all cases, data about the practice were provided by the program, school, or district studied as part of a description of their practice. We did not independently analyze data gathered through a consistent assessment tool, and we did not evaluate their uses of data for measuring effectiveness. Thus, the data in the practice profiles are intended not to prove the practice's effectiveness from a research perspective, but to paint a detailed picture of the practice and what data were used by the program, school, or district to gauge how well it was working.

Theoretical frameworks. In some cases, district staff mentioned specific literature on theory or practice that they used when they developed the practice we highlight. In those cases, we cite that literature in our discussion of the practice.

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